

REMARKS

The Office Action dated July 17, 2003, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this amendment, the drawings and claim 6 have been amended. No new matter has been added. Claims 1-7 are respectfully submitted for consideration.

The drawings were objected to for minor informalities. Responsive to this rejection, Figures 15-18 have been labeled as "Prior Art", and in Figure 16, the reference sign 101, discussed on page 1 line 24 of the specification, was added.

The Applicant wishes to thank the Examiner for the interview granted on October 15, 2003. In the interview claims 1 and 6, and the Bagepalli et al. (U.S. Patent No. 6,030,175, "Bagepalli") and Tong (U.S. Patent No. 6,431,550) references were discussed. As a result of the interview, the Examiner indicated that further consideration would be given to the arrangement of the connecting portions and the split-body parts.

Claim 6 was rejected under 35 U.S.C. §102(b) as being anticipated by Bagepalli. The Applicant traverses the rejection and respectfully submits that claim 6 recites subject matter that is neither disclosed nor suggested by Bagepalli.

According to U.S. patent practice, a reference must teach every element of a claim in order to properly anticipate the claim under 35 U.S.C. §102. In addition, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal*

Bros. v. Union Oil Co. of California, 814 F.2d 628,631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “Every element of the claimed invention must be arranged as in the claim . . . the identical invention, specifically, [t]he identical invention must be shown in as complete detail as contained in the claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). The Applicant respectfully submits that Bagepalli does not disclose or suggest the connecting portions, split-body parts and splitting surfaces as arranged in the claim. Accordingly, Bagepalli does not anticipate claim 6, nor is claim 6 obvious in view of Bagepalli.

Claim 6 recites “said split-body parts which hold said brush seal and each of which has connecting portions that are split and that extend along said splitting surfaces, wherein each of said splitting surfaces has not only axial step but also radial step said split-body parts are connected to one another so as to make a circumferential clearance between the splitting surfaces of the connected split-body parts.” Claim 6, as amended, further recites “said radial step is formed along a radial way of the circumferential clearance in order that the circumferential clearance is interrupted by the radial step.”

The Office Action took the position that Bagepalli discloses “a plurality of split body parts (26, 28, 30). . . which hold the brush seal and each of which has connecting portions (3) that are split and that extend along the splitting surfaces.” See paragraph 5 of the Office Action. However, the Applicant respectfully submits that each labyrinth seal segment 26, 28 and the mounting block 30, in Bagepalli, do not have connecting portions that are split and that extend along the splitting surfaces. The mounting block

30 in Bagepalli, which was compared to the connecting portions of the present invention, is not split. Further, the Office Action took the position that the ends 48, 50, 56, 58, 60, 62 were comparable to the splitting surfaces. However, Bagepalli does not disclose any element that extends along these surfaces. Bagepalli fails to disclose or suggest that each end 48, 50, 56, 58, 60, 62 has an axial and radial step, as the ends in Bagepalli are planar.

As such, Bagepalli fails to disclose a circumferential clearance between splitting surfaces of the connected split-body parts. In the present invention, fluid flowing into the circumferential clearance is interrupted by the radial step, because the radial step is formed along the radial way of the circumferential clearance. In contrast, Bagepalli fails to disclose a radial step formed on a radial way of the circumferential clearance in order that the circumferential clearance is interrupted by the radial step. For at least the combination of foregoing reasons the Applicant respectfully submits that Bagepalli fails to disclose or suggest the present invention as claimed in claim 6.

Claims 1, 2, 4, 5, and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bagepalli et al. (U.S. Patent No. 6,030,175, "Bagepalli") in view of Tong (U.S. Patent No. 6,431,550). Bagepalli was cited for disclosing many of the claimed elements of the invention with the exception of each of the splitting direction-extending surfaces having shutoff means for sealing a gap between the splitting direction-extending surfaces that are combined with each other. Tong was cited for curing these deficiencies. The Applicant traverses the rejection and respectfully submits that claims recite subject matter that is neither disclosed nor suggested by the cited prior art.

Under U.S. patent practice, the PTO has the burden under §103 to establish a *prima facie* case of obviousness. In re Fine, 5 U.S.P.Q.2nd 1596, 1598 (Fed. Cir. 1988). Both the case law of the Federal Circuit and the PTO itself have made clear that where a modification must be made to the prior art to reject or invalidate a claim under §103, there must be a showing of proper motivation to do so. The mere fact that a prior art reference could arguably be modified to meet the claim is insufficient to establish obviousness. The PTO can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. Id. In order to establish obviousness, there must be a suggestion or motivation in the reference to do so. See also In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984) (prior art could not be turned upside down without motivation to do so); In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998); In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Lee, 277 F.3d 1338 (Fed. Cir. 2002).

As a preliminary matter, the Applicant respectfully submits that Bagepalli fails to disclose at least one additional feature of the invention not noted in the Office Action. Claim 1 recites “split-body parts which hold said brush seal and each of which has connecting portions that are split and that extend along said splitting surfaces”. As discussed above with respect to claim 6, Bagepalli fails to disclose at least the feature of split body parts having connecting portions that are split and that extend along the splitting surfaces, as claimed in claim 1. The Office Action took the position that the mounting block 30 was comparable to the connecting portions and that the

circumferential ends 48, 50 56, 58, 60, 62 were comparable to the splitting surfaces. However, the Applicant submits that the mounting 30 block does not extend along the circumferential ends in Bagepalli. As such, there is no disclosure or suggestion in Bagepalli of split-body parts having connecting portions that are split and that extend along the splitting surface as recited in claim 1.

Tong fails to cure this deficiency in Bagepalli with respect to claim 1, as Tong fails to disclose "split-body parts which hold said brush seal and each of which has connecting portions that are split."

In addition, with respect to the noted rejection of claims 1, 2, 4 and 5, the Applicant respectfully submits that the combination of Bagepalli and Tong fails to disclose or suggest the claimed features of the invention. As acknowledged in the Office Action, Bagepalli fails to disclose that each of said splitting direction-extending surfaces has shutoff means for sealing a gap between said splitting direction-extending surfaces that are combined with each other. Tong, fails to cure this deficiency in claim 1.

The Office Action took the position that it would have been obvious to include a brush seal as taught by Tong between the circumferential ends of Bagepalli for "preventing oil leakage through this potential gap between seal ring segments". This is an insufficient showing of motivation as the Office Action has not indicated how the references themselves or the prior art in general provide support for the suggested modification to Bagepalli. In particular, Bagepalli does not have a gap between the circumferential end surfaces. Further, the Office Action's suggestion of a "potential" for a gap is not disclosed or suggested in Bagepalli. The mere fact that references can be

combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Therefore, since the gap does not exist in the Bagepalli, there is no motivation for the modification of this reference in the manner suggested in the Office Action. Accordingly, the combination of Bagepalli and Tong fail to support a *prima facie* case of obviousness of claim 1.

With respect to claim 7, the Applicant respectfully submits that the combination of Bagepalli and Tong fails to disclose or suggest the claimed features of the invention.

Claim 7 recites “said split-body parts which hold said brush seal and each of which has connecting portions that are split and that extend along said splitting surfaces, wherein each of said splitting surfaces has an axial step and sealing means are disposed between opposed faces of splitting direction-extending surfaces of said splitting surfaces.” As discussed above, with respect to claims 1 and 6, Bagepalli fails to disclose or suggest connecting portions that are split and that extend along splitting surfaces. Tong fails to cure this deficiency in Bagepalli, as Tong also fails to disclose connecting portions that are split. Therefore, for similar reasons, Bagepalli and Tong fail to disclose or suggest this feature as recited in claim 7.

Also with respect to claim 7, the Office Action took the position that elements 48, 50 56, 58, 60, 62 were comparable to the splitting surfaces, and that these elements have an axial step between labyrinth seal segments 26 and 28. Reference numerals 48, 50 56, 58, 60, 62, refer to circumferential end surfaces. These end surfaces in Bagepalli are not disclosed as having an axial step, as there is no step in the surfaces

the axial direction 42. Further, the Office Action's reference to an axial step between segments 26 and 28 bears no relation to the circumferential end surfaces. As such Bagepalli fails to disclose or suggest at least splitting surfaces having an axial step. Tong fails to cure this deficiency in Bagepalli as the reference also does not disclose an axial step.

Further, with respect to claim 7, the Office Action took the position that it would have been obvious to include a brush seal as taught by Tong between the circumferential ends of Bagepalli to prevent leakage, "through a potential gap between seal segments". This is an insufficient showing of motivation as the Office Action has not indicated how the references themselves or the prior art in general provide support for the suggested modification to Bagepalli. Specifically, Bagepalli does not have a gap between the circumferential end surfaces. Further, the Office Action's suggestion of a "potential" for a gap is not disclosed in Bagepalli. Therefore, since the gap does not exist in the Bagepalli, there is no motivation for the modification of this reference in the manner suggested in the Office Action. Therefore, the Applicant respectfully submits that the combination of Bagepalli and Tong does not disclose each and every feature of the invention as recited in claim 7, nor is there a motivation in the references themselves, or the prior art in general for their combination.

Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bagepalli in view of Tong and further view of Julien et al. (U.S. Patent No. 5,226,683, "Julien"). Bagepalli and Tong were cited for disclosing many of the claimed elements of the invention with the exception of the shutoff means having a sealing plate made from a super-elastic alloy material on the contact surfaces. Julien was cited for curing this

deficiency. The Applicant respectfully submits that claim 3 recites subject matter that is neither disclosed nor suggested by the cited prior art.

With respect to claim 3 the Applicant respectfully submits that the combination of Bagepalli, Tong and Julien fails to disclose or suggest the claimed features of the invention. Claim 3 depends from claim 1. As discussed above, Bagepalli and Tong fail to disclose the split-body parts having connecting portions that are split and that extend along the splitting surface, and a shutoff means as recited in claim 1. Julien fails to cure the above-noted deficiencies in Bagepalli and Tong as the reference does not disclose or suggest split-body parts having connecting portions that are split and that extend along the splitting surface, and a shutoff means. As such, Bagepalli, Tong, and Julien, either singly or in combination, fail to disclose or suggest the features of the invention as recited in claim 1 and, therefore, dependent claim 3. Therefore, in view of the above, the Applicant respectfully submits that the Office Action has failed to establish a *prima facie* case of obviousness for purposes of a rejection of claims 1-5 and 7 under 35 U.S.C. §103.

Claims 2-5 depend from claim 1. The Applicant respectfully submits that these dependent claims are allowable for at least because of their dependency from allowable base claim 1. Accordingly, the Applicant respectfully requests allowance of claims 1-7 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing attorney docket no. 108179-00006.**

Respectfully submitted,



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Enclosure: Drawing Figures 15-18